



# IOWA DEPARTMENT OF NATURAL RESOURCES

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LEADING IOWANS IN CARING FOR OUR NATURAL RESOURCES

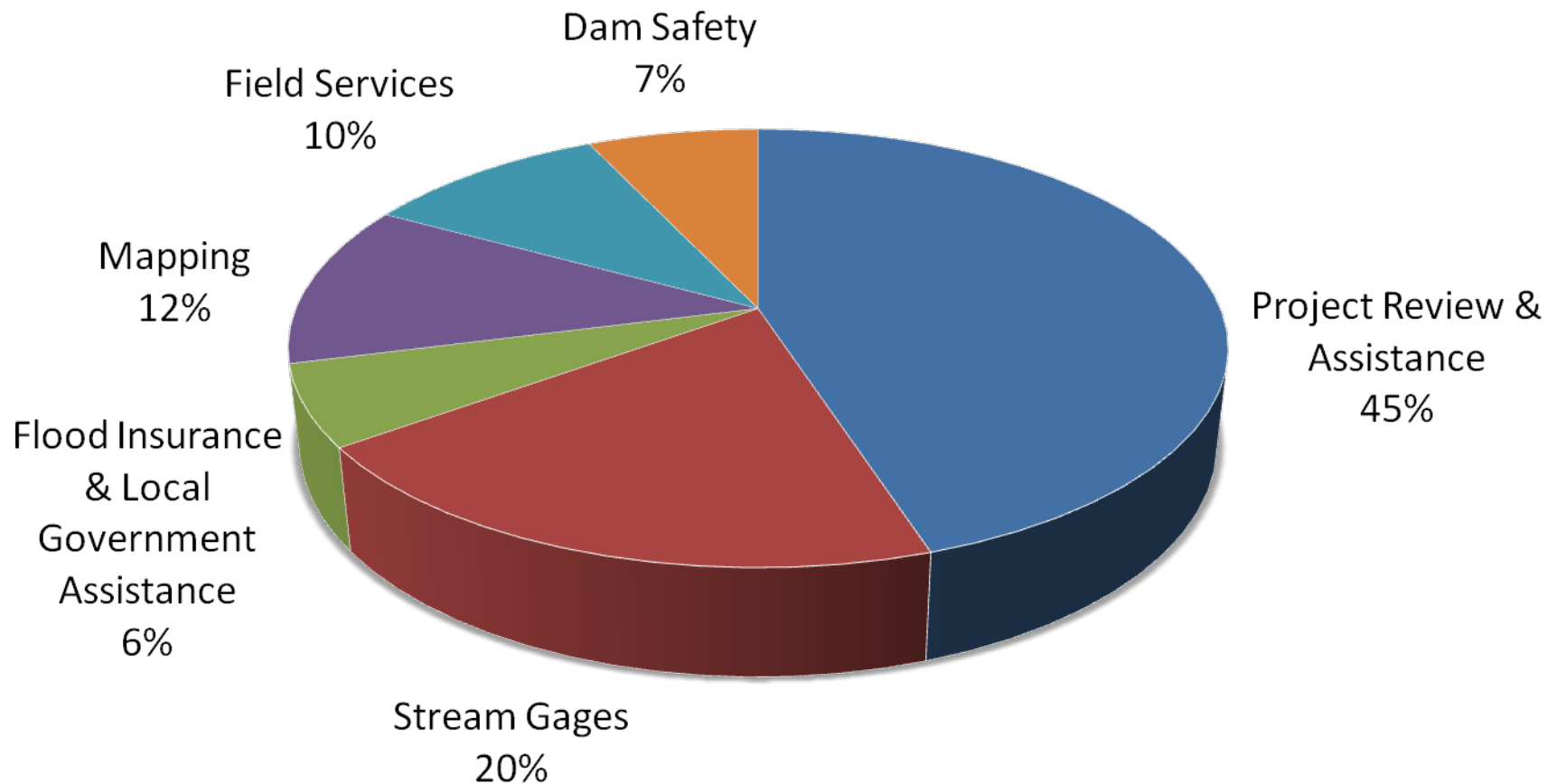
**Flood Plain Management and Dam Safety**

# Protection of Life and Property



# \$2 million Infrastructure Funds - Budgeted

- Up to \$400,000 for stream gages

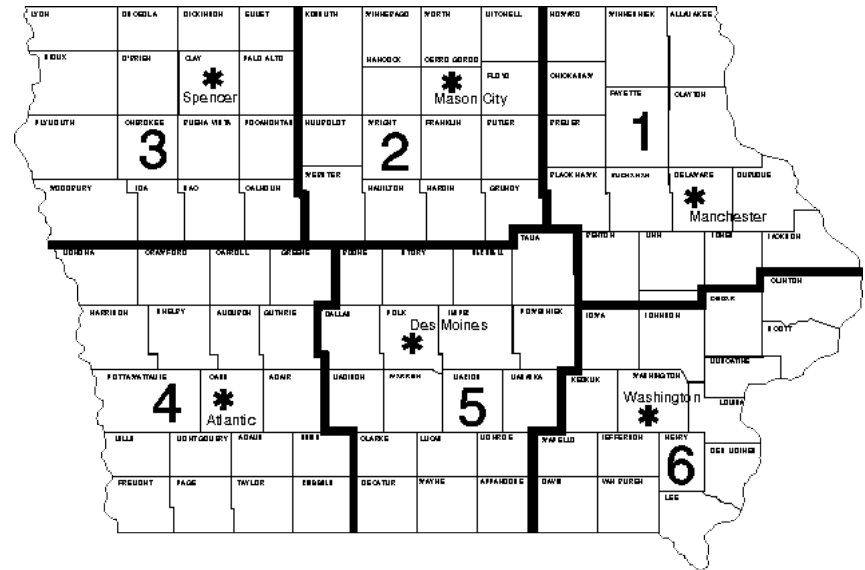


# Flood Plain Project Review and Assistance

- **New Forms on the Website:** Go to <http://floodplain.iowadnr.gov/> to speed up processing time
- **New Phone Assistance Line:** DNR flood plain engineers are on call during regular business hours. Toll-free **866-849-0321**.
- **Continued Expertise:** DNR flood plain engineers have the experience and expertise to provide reliable assistance for all project types
  - 1200 project reviews
  - 300 technical assistance calls

# Field Services

- Site Visits
- Compliance Assistance
- Emergency Response
  - Over 250 field assistance activities



# Flood Insurance & Local Government Assistance

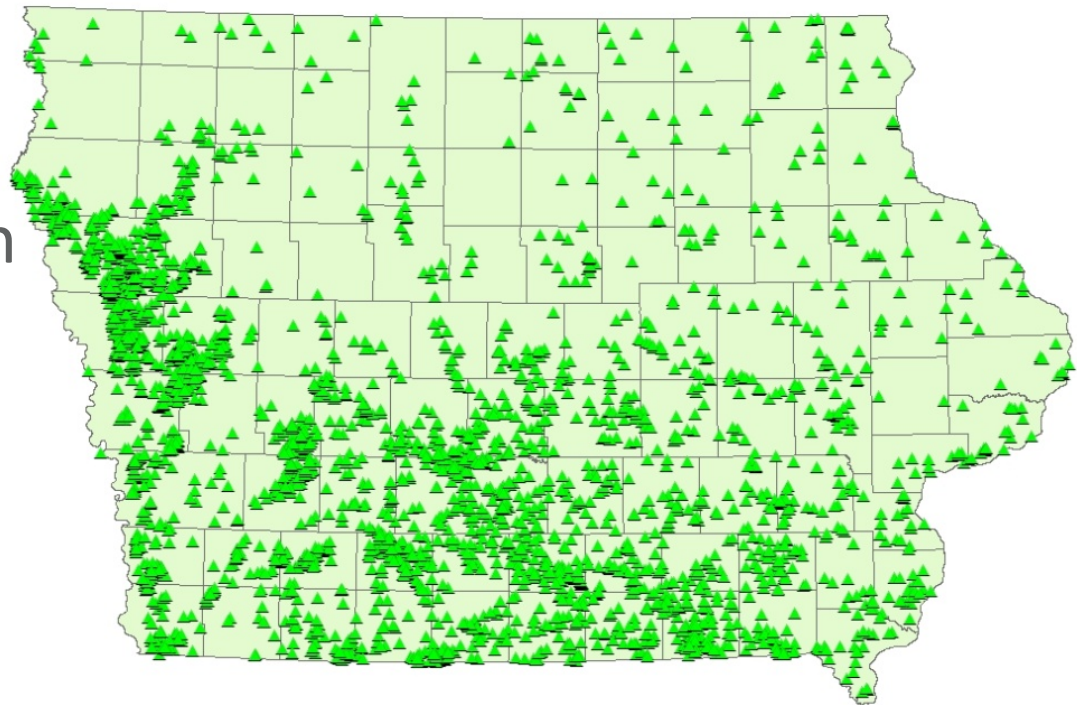
- Ordinance Development and Review
- Community Assistance Visits
- Outreach and Education
- Engineering and Program Assistance
  - Helped 140 communities
  - Participated in 10 Flood Forums
  - Handled over 1500 phone and e-mail questions

# House File 759 Update (2009)

- Requires that non-participating communities with FEMA identified Special Flood Hazard Areas join the National Flood Insurance Program
- Assisted 62 communities in joining NFIP since 2009
- Total of 556 communities in Iowa that participate in the National Flood Insurance Program

# Iowa Dam Safety Program

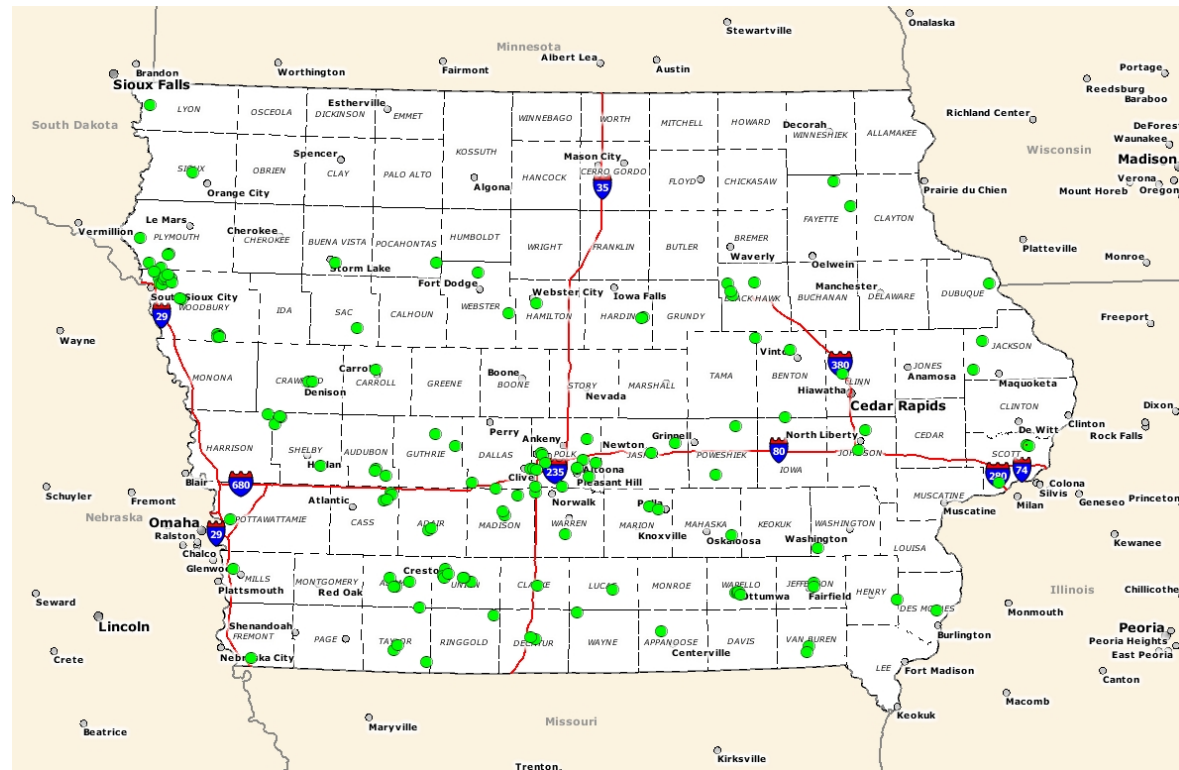
- Project Review and Assistance
- Dam Owner Education
- Dam Inspections
- Emergency Action Planning





# Dam Inspections

- 72 inspections completed in 2010
- Working with dam owners on identified repairs and maintenance



125 dams scheduled for inspection in 2011

# Emergency Action Plans for High Hazard Dams

## Emergency Action Plans:

- Identify areas that would flood following a dam failure
- Establishes lines of communication between owner and emergency response personnel
- Provides warnings and evacuations to be conducted by police/fire

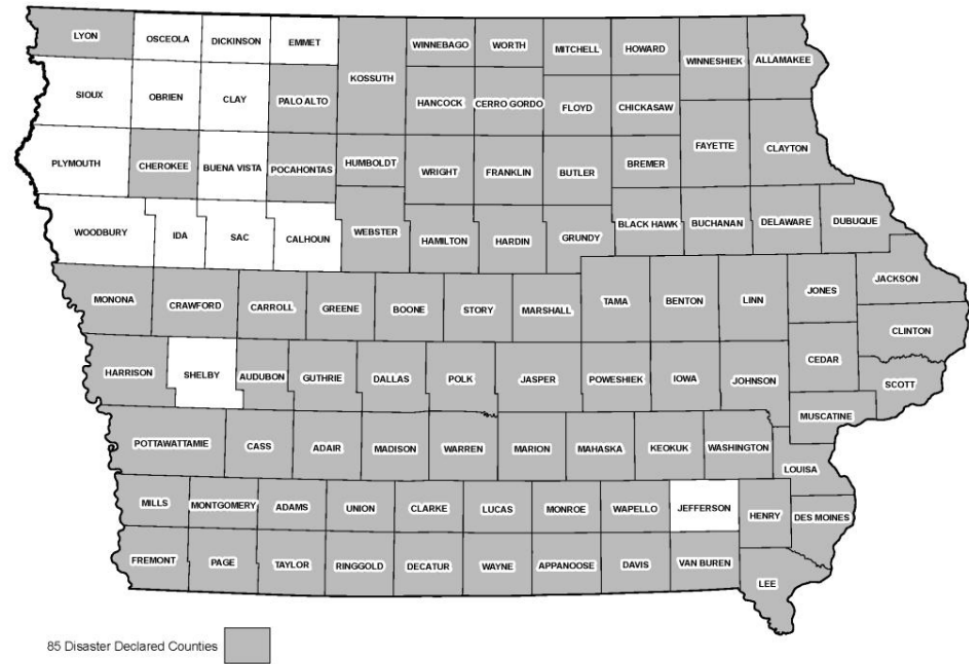
## Lake Delhi Dam Breach 2010



# Flood Plain Mapping

- \$15M HUD CDBG grant
- Supports floodplain mapping in the 85 counties declared federal disaster areas in 2008
- “...to produce floodplain maps that meet FEMA technical standards and can be published as Digital Flood Insurance Rate Maps (DFIRMs).”

Figure 1 - Federal Disaster Declaration (FEMA-1763-DR)



# Stream Gages

## What does a stream gage do?

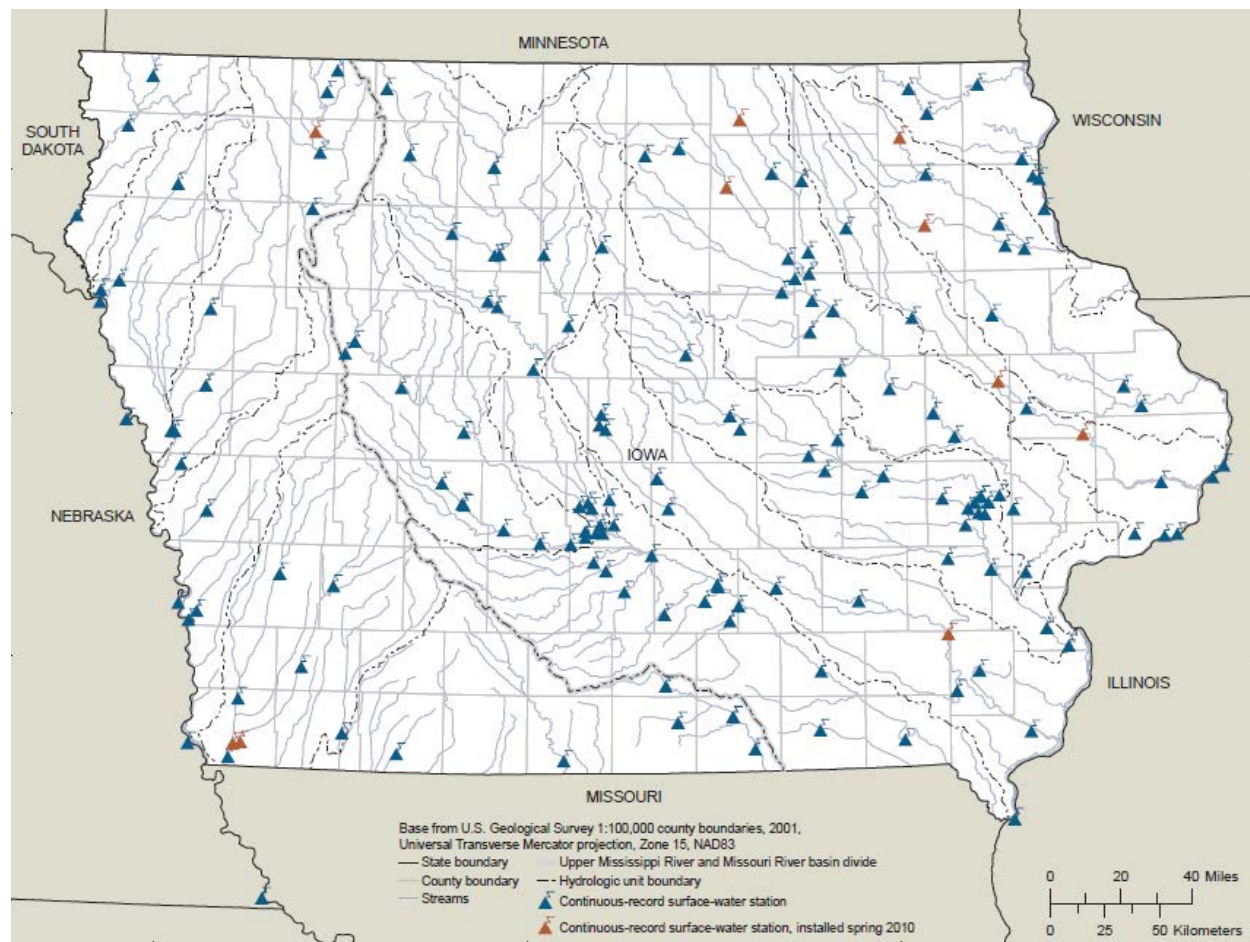
- Used to measure water level and flow
- Data sets describe average conditions, long-term variations and trends in flow

## Why do we need this information?

- Flood Plain Determinations
- Flood Frequency Analysis
- Flood Plain Mapping
- Flood Forecasting & Warnings

# 171 USGS Stream Gages in Iowa

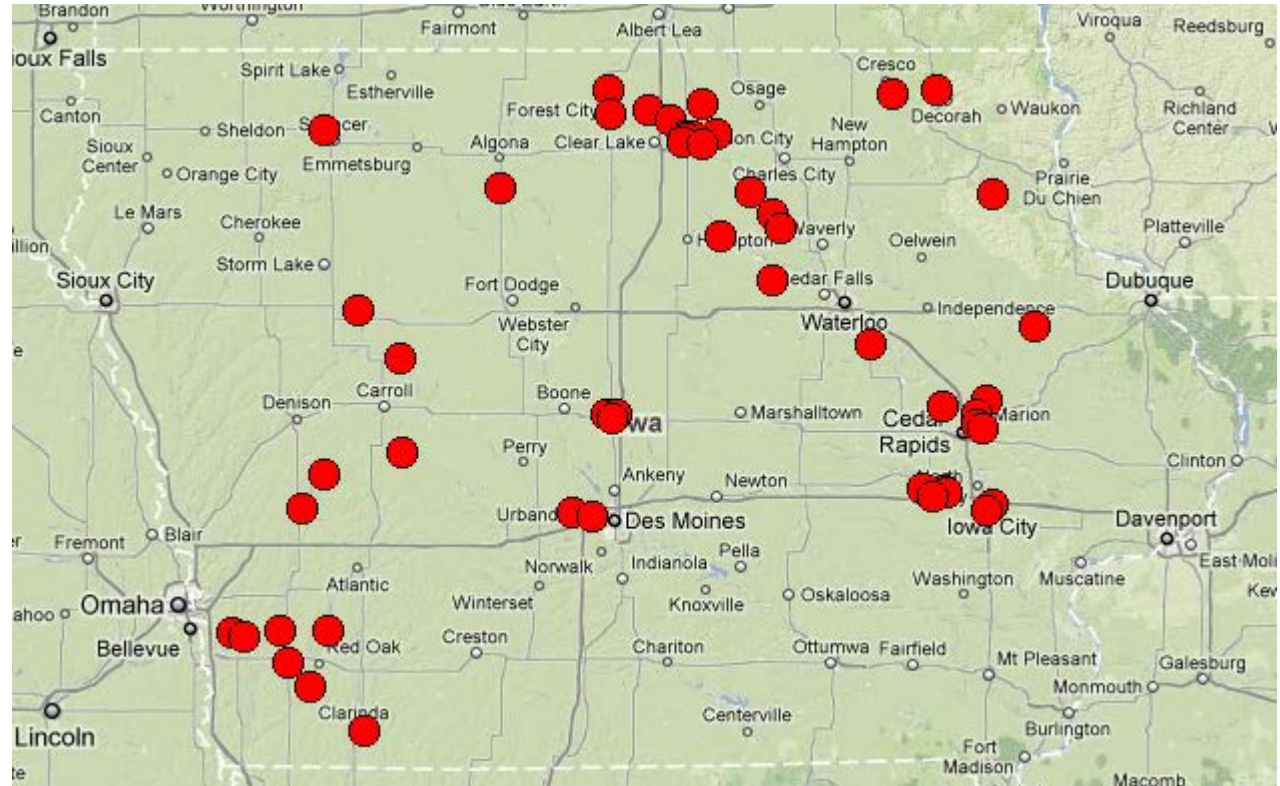
Maintaining 10  
new stream  
gages that  
were added in  
2009





# Stream Stage Sensor Pilot Project

- Working with Iowa Flood Center
- 50 Stream Stage Sensors Deployed
- Real time data used by local emergency managers for flood warning





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Lori McDaniel, Supervisor  
Water Resources Section  
Water Quality Bureau